

Fiber Optical Patch Cables are one of most commonly used components in fiber optic network. We supply fiber optic patch cable with different connector and cable type. The common core sizes of multimode fiber are OM1 62.5 micron and 50 micron in OM2 or 10 Gigabit Laser Optimized OM3. We offer single mode patch cord and multimode fiber patch cable with a variety of connector types such as LC, FC, SC, ST, MU, MTRJ and E2000. Duplex fiber cables consist of two fiber cores and can be either multimode or singlemode. We also can customize patch cables in any cut length.

Features

- Connector Type: LC, FC, SC, ST, MU, MTRJ, E2000, SMA
- Ferrule Interface Type: UPC to UPC, APC to APC, APC to UPC
- Fiber Types: Simplex, Duplex, Multicore
- Fiber Mode; Single mode (G.652, G655), multimode(50/125)/(62.5/125), 10G OM3 OM4 fiber cable available
- Length: 1-300 m / Custom
- 100% Insertion Return Loss, End Face and Interference inspection
- Low insertion loss, high return loss
- Excellent mechanical endurance
- Good in repeatability and exchangeability
- Various jacket material, PVC, LSZH, Plenum (OFNP), Armored, Custom

Connector Types



Specifications

LC, SC, ST, FC, E2000, MTRJ, MU Connectors					
		FC, SC, LC	ST, MU	MTRJ	E2000

Specifications	Unit	Singlemode			Multimode	Singlemode		Multimode	Singlemode		Multimode	Singlemode	
		PC	UPC	APC	PC/UPC	PC	UPC	PC/UPC	PC	UPC	PC/UPC	PC	APC
Insertion loss	dB	≤0.3	≤0.2	≤0.3	≤0.2	≤0.3	≤0.2	≤0.2	≤0.3	≤0.2	≤0.2	≤0.3	≤0.3
Return loss	dB	≥45	≥50	≥60	≥30	≥45	≥50	≥30	≥45	≥50	≥35	≥55	≥75
Wavelength	nm	850, 1310			850, 1310			850, 1310			850, 1310		
Interchangeability	dB	≤0.2			≤0.2			≤0.2			≤0.2		
Vibration	dB	≤0.2			≤0.2			≤0.2			≤0.2		
Operating temperature	°C	-40~75			-40~75			-40~75			-40~75		
Storage temperature	°C	-45~85			-45~85			-45~85			-45~85		
Cable diameter	mm	3.0, 2.0, 0.9			3.0, 2.0, 0.9			3.0, 2.0, 0.9			3.0, 2.0, 0.9		

SMA Fiber Connector			
Connector Termination Type	Metal Ferrule		Zirconia Ferrule
	Without Groove (Default)	With Groove	
Fiber Mode	Multi-mode		

Tailstock of Connector	Standard (Default)	Lengthen (custom)
Bare fiber Clamp	With	Without (Default)
Inner Hole Size	0.127~1.200mm	
Concentricity	≤3.0μm	
Roundness	≤2.0μm	
Core Material	Stainless Steel	Cupronickel
Operating Temperature	-40~75 °C	
Storage Temperature	-45~85 °C	

Distance Comparison Among OM1, OM2, OM3, OM4 and OS1 Fiber Optic Patch Cables

Applications	Wavelength	OM1 62.5/125μm	OM2 50/125μm	OM3 50/125μm	OM4 50/125μm	OS1 9/125μm
100BASE-SX	850nm	300m	300m	300m	300m	-
1000BASE-SX	850nm	220m	550m	550m	550m	-
1000BASE-LX	1310nm	550m	550m	1000m	1000m	2000m
10GBASE-SR SR	850nm	32m	86m	300m	550m	-
10GBASE-LR LW	1310nm	220m	220m	220m	220m	2000m
10GBASE-LX4	1310nm	300m	300m	300m	300m	2000m
40GBASE-SR4	850nm	-	-	100m	125m	-

100GBASE-SR4	850nm	-	-	100m	125m	-
40GBASE-LR4	1310nm	-	-	-	-	2000m
100GBASE-LR4	1310nm	-	-	-	-	2000m

Cable Mechanical Data

Fiber Count	Cable Diameter (mm)	Weight (kg/km)	Mini. Bending Radius(mm)		Max. Tension(N)	
			Dynamic	Static	Short Term	Long Term
Simplex	2.0	3.40	30	20	150	80
	3.0	6.20	45	30		
Duplex	2.0	6.90	30	20	300	160
	3.0	14.02	45	30		

Testing System

In order to assure a satisfactory performance, a rigid testing procedure is applied to every fiber optic patch cable assembled by Cablexa. The aim of this testing procedure is to make sure that every Cable patch cord is in best condition before delivery.

Insertion Loss Test

- For Singlemode fiber optic patch cable: Tested in accordance with the GR-326-CORE, the maximum insertion loss shall not exceed 0.3dB against master connector. Cablexa's typical value is 0.1dB
- For Multimode fiber optic patch cable: In accordance with FOTP-34 (interconnection device insertion loss test) and FOTP-171 (attenuation by substitution measurement), all tests are measured with advanced testing equipment. The maximum insertion loss shall not exceed 0.3dB against master connector, typical value is 0.1dB.

Return Loss Test

For Singlemode fiber optic patch cables only: Strictly following FOTP-107, we use JDSU RX and RM series Power and Back Reflection Meters for our return loss measurement.

Ferrule Surface Inspection

Every connector is inspected with 200X microscope to ensure there is no visible scratch on the fiber. We also use ME-2500 (600X microscope) to pick up very fine-line scratches, if any, on the ferrule surface.

Topography Measurement of the Ferrule

Our interferometer can perform an accurate measurement of radius of curvature, fiber height, apex offset, fiber roughness and ferrule roughness. Sample checked by our QC manager could make sure all the critical parameters are within specifications defined by international organizations. One interferometric quality control report would be provided free of charge per 400 terminations for General Patch cord and every termination for Measurement/Reference Patch cord. Please contact us for special request of quality control report or higher sampling ratio.